

IN THE CLAIMS:

A. Please amend claims 1, 5, 7, 9, 11 and 17 as follows:

B. Please add new claims 19-21 as follows:

1. (Currently Amended) A method of controlling an operation of a motor, comprising ~~the steps of:~~

detecting a phase voltage value and a phase current value applied to the motor between forward and backward revolution sections of the motor;

calculating a phase resistance value based on the detected phase voltage and current values and an operational frequency value; and

a¹ controlling the operation of the motor by controlling a voltage applied to the motor in accordance with the calculated phase resistance value.

2. (Original) The method of claim 1, wherein the motor is a sensorless brushless direct current motor.

3. (Original) The method of claim 1, wherein the motor is used for a washing machine.

4. (Original) The method of claim 1, wherein the voltage applied to the motor is proportional to a size of the phase resistance value.

5. (Currently Amended) The method of claim 1, further comprising ~~the steps of:~~
calculating the phase resistance value ~~every at~~ predetermined time when the motor
~~stops~~ intervals; and

controlling the voltage applied to the motor ~~using~~ based on an average value of
the calculated phase resistance values.

6. (Original) The method of claim 1, wherein the phase resistance value is calculated
by dividing the phase voltage by the phase current when an operational frequency of the motor
approaches '0'.

7. (Currently Amended) A method of controlling an operation of a motor,
comprising ~~the steps of:~~

detecting a phase voltage value and a phase current value applied to the motor ~~on~~
at a middle section between forward and backward revolution sections of a sensorless brushless
direct current motor ~~built inside a washing machine~~;

calculating a phase resistance value based on the detected phase voltage and
current values and an operational frequency value; and

controlling the operation of the motor by controlling a voltage applied to the
motor in accordance with the calculated phase resistance value.

8. (Original) The method of claim 7, wherein the voltage applied to the motor is proportional to a size of the phase resistance value.

9. (Currently Amended) The method of claim 7, further comprising ~~the steps of:~~
calculating the phase resistance value ~~every at predetermined time when the motor~~
~~stops~~ intervals; and

controlling the voltage applied to the motor ~~using~~ based on an average value of
the calculated phase resistance values.

10. (Original) The method of claim 7, wherein the phase resistance value is calculated
by dividing the phase voltage by the phase current when an operational frequency of the motor
approaches '0'.

11. An apparatus for controlling an operation of a motor, comprising:
a revolution section detect unit ~~calculating~~ configured to calculate an operational
frequency of the motor based on phase voltage and current values applied to the motor and
~~outputting~~ configured to output a section detect signal by detecting an operational section of the
motor in accordance with the calculated operational frequency;

a calculation unit ~~receiving~~ configured to receive the phase voltage and current
values in accordance with the section detect signal ~~so as to~~ and configured to calculate a phase
resistance value;

a speed/position calculation unit ~~calculating~~ configured to calculate a rotor position of the motor by detecting the calculated phase resistance value and the phase voltage and current values and ~~calculating~~ also configured to calculate a speed of the motor; and

a voltage command generator ~~generating~~ configured to generate a voltage command to and apply a voltage to the motor based on the rotor position and the speed of the motor.

a) 12. (Original) The apparatus of claim 11, wherein the operational section is a middle section between forward and backward revolution sections of the motor.

13. (Original) The apparatus of claim 11, wherein the calculation unit calculates the phase resistance value at a middle section between forward and backward revolution sections of the motor.

14. (Original) The apparatus of claim 11, wherein the motor is a sensorless brushless direct current motor.

15. (Original) The apparatus of claim 11, wherein the motor is used for a washing machine.

16. (Original) The apparatus of claim 11, wherein the voltage applied to the motor is proportional to a size of the phase resistance value.

17. (Currently Amended) The apparatus of claim 11, wherein the calculation unit calculates the phase resistance value ~~every~~ at predetermined time intervals and calculates an average value of the calculated phase resistance value.

a' 18. (Original) The apparatus of claim 11, wherein the calculation unit calculates the phase resistance value by dividing the phase voltage by the phase current when an operational frequency of the motor approaches '0'.

19. (New) The method of claim 5, wherein the phase resistance is calculated when the motor stops.

20. (New) The method of claim 7, wherein the sensorless brushless direct current motor is built inside a washing machine.

21. (New) The method of claim 9, wherein the phase resistance is calculated when the motor stops.
